



GIF

PATENT
Atty. Dkt. AMAT/5730/TCG/WCVD/LE

0353 #12

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Yoo, et al.

Serial No.: 10/023,125

Confirmation No.: 5845

Filed: December 17, 2001

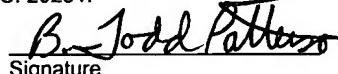
For: Pulse Nucleation Enhanced
Nucleation Technique for
Improved Step Coverage
and Better Gap Fill for
WCVD Process

Group Art Unit: Unknown

Examiner: Unknown

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

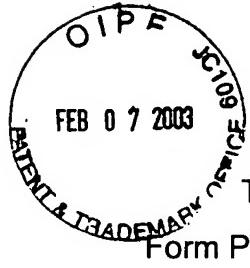
CERTIFICATE OF MAILING 37 CFR 1.8	
I hereby certify that this correspondence is being deposited on February 4, 2003 with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231.	
2/4/03 Date	 Signature

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

The Applicants, and the Attorney who signs below on the basis of the information supplied by the inventor and the information in his file, submit herewith patents, publications, or other information of which they are aware, which may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56.

While the information submitted in this Supplemental Information Disclosure Statement may be material pursuant to 37 CFR § 1.56, it is not intended to constitute an admission that any patent, publication, or other information referred to therein is prior art for this invention unless specifically designated as such.

In accordance with 37 CFR § 1.97, this Supplemental Information Disclosure Statement is not to be construed as a representation that a search has been made or that no other possibly material information as defined under 37 CFR § 1.56(a) exists.



The patents and/or publications submitted herewith are set forth on the attached Form PTO-1449.

If the sum of \$180.00 is due under 37 CFR § 1.17(p) pursuant to § 1.97, the Commissioner is hereby authorized to charge this fee, and any other fee necessary to make this submission timely, to the Deposit Account No. 20-0782/APPM/5730/BTP.

Respectfully submitted,

B. Todd Patterson
B. Todd Patterson
Registration No. 37,906
MOSER, PATTERSON & SHERIDAN, L.L.P.
3040 Post Oak Blvd., Suite 1500
Houston, TX 77056
Telephone: (713) 623-4844
Facsimile: (713) 623-4846
Attorney for Applicant(s)

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. AMAT/5730/TCG/ WCVD/LE	Serial No. 10/023,125
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant Yoo, et al.	Confirmation No.: 5485
(Use several sheets if necessary)		Filing Date Dec. 17, 2001	Group Unknown
	Examiner Unknown	TELEMARK OFFICE FEB 07 2003	

U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
	A1	6,482,740	11/19/02	Soininen, et al.	438	686	05/15/01
	A2	6,482,733	11/19/02	Raaijmakers, et al.	438	633	04/26/01
	A3	6,475,910	11/05/02	Sneh	438	685	09/22/00
	A4	6,475,276	11/05/02	Elers, et al.	117	84	10/13/00
	A5	6,451,695	09/17/02	Sneh	438	685	12/22/00
	A6	6,451,119	09/17/02	Sneh, et al.	118	715	11/29/00
	A7	6,447,933	09/10/02	Wang, et al.	428	635	04/30/01
	A8	6,423,619	07/23/02	Grant, et al.	438	589	11/30/01
	A9	6,420,189	07/16/02	Lopatin	438	2	04/27/01
	A10	6,391,785	05/21/02	Satta, et al.	438	704	08/23/00
	A11	6,369,430	04/09/02	Adetutu, et al.	257	382	04/02/01
	A12	6,368,954	04/09/02	Lopatin, et al.	438	627	07/28/00
	A13	6,358,829	03/19/02	Yoon, et al.	438	597	09/16/99

Foreign Patent Documents

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
	B1	1 033 5264	12/18/98	JP (Abst)	H01L	21/285	<input type="checkbox"/>	<input type="checkbox"/>
	B2	0 406 4223	02/28/92	JP (Abst)	H01L	21/285	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B3	6 203 3768	02/13/87	JP (Abst)	C23C	16/14	<input type="checkbox"/>	<input type="checkbox"/>

OTHER ART

*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
	C1	Lee, et al., "Pulsed Nucleation for Ultra-High Aspect Ratio Tungsten Plugfill," Conference Proceedings ULSI XV111 (2002) Materials Research Society
	C2	Sone, et al., "Formation of Low Pressure Chemically Vapour Deposited W Thin Film on Silicon Dioxide for Gate Electrode Application," Thin Solid Films 253 (1994) 377-381
	C3	International Search Report, dated November 25, 2002 for PCT/US02/22486

Examiner	Date Considered
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. AMAT/5730/TCG/WCVD/LE	Serial No. 10/023,125
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant Yoo, et al.	Confirmation No.: 5485
(Use several sheets if necessary)		Filing Date Dec. 17, 2001	Group Unknown
	Examiner Unknown		

U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
	A15	6,355,561	03/12/02	Sandhu, et al.	438	676	11/21/00
	A16	6,333,260	12/25/01	Kwon, et al.	438	643	06/24/99
	A17	6,305,314	10/23/01	Sneh, et al.	118	723 R	12/17/99
	A18	6,287,965	09/11/01	Kang, et al.	438	648	02/23/00
	A19	6,284,646	09/04/01	Leem	438	629	08/19/98
	A20	6,200,893	03/13/01	Sneh	438	685	03/11/89
	A21	6,113,699	09/05/00	Hansen	118	715	11/26/97
	A22	6,042,652	03/28/00	Hyun, et al.	118	719	09/07/99
	A23	5,994,775	11/30/99	Zhao, et al.	257	751	09/17/97
	A24	5,306,666	04/26/94	Izumi	437	192	07/21/93
	A25	2002/0162506	11/07/02	Sneh, et al.	118	715	06/28/02
	A26	2002/0155722	10/24/02	Satta, et al.	438	704	04/15/02
	A27	2002/0121697	09/05/02	Marsh	257	751	04/30/02

Foreign Patent Documents

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
	B4						<input type="checkbox"/>	<input type="checkbox"/>
	B5						<input type="checkbox"/>	<input type="checkbox"/>
	B6						<input type="checkbox"/>	<input type="checkbox"/>

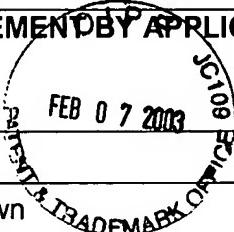
OTHER ART

*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
	C4	
	C5	
	C6	

Examiner	Date Considered
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. AMAT/5730/TCG/ WCVD/LE	Serial No. 10/023,125
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant Yoo, et al.	Confirmation No.: 5485
(Use several sheets if necessary)		Filing Date Dec. 17, 2001	Group Unknown
	Examiner Unknown		

**U.S. Patent Documents**

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
	A28	2002/0117399	08/29/02	Chen, et al.	205	125	02/23/01
	A29	2002/0109168	08/15/02	Kim, et al.	257	295	01/30/02
	A30	2002/0106846	08/08/02	Seutter, et al.	438	200	02/02/01
	A31	2002/0105088	08/08/02	Yang, et al.	257	774	10/31/01
	A32	2002/0090829	07/11/02	Sandhu, et al.	438	761	01/31/02
	A33	2002/0086507	07/04/02	Park, et al.	438	585	12/26/01
	A34	2002/0076507	06/20/02	Chiang, et al.	427	569	10/24/01
	A35	2002/0061612	05/23/02	Sandhu, et al.	438	151	01/14/02
	A36	2002/0055235	05/09/02	Agarwal, et al.	438	430	10/29/01
	A37	2002/0048880	04/25/02	Lee	438	253	08/08/01
	A38	2002/0031618	03/14/02	Sherman	427	569	10/09/01
	A39	2002/0037630	03/28/02	Agarwal, et al.	438	430	10/29/01
	A40	2002/0019121	02/14/02	Pyo	438	618	06/20/01

Foreign Patent Documents

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
	B7						<input type="checkbox"/>	<input type="checkbox"/>
	B8						<input type="checkbox"/>	<input type="checkbox"/>
	B9						<input type="checkbox"/>	<input type="checkbox"/>

OTHER ART

*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
	C7	
	C8	
	C9	

Examiner	Date Considered
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. AMAT/5730/TCG/ WCVD/LE	Serial No. 10/023,125
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant Yoo, et al.	Confirmation No.: 5485
(Use several sheets if necessary)		Filing Date Dec. 17, 2001	Group Unknown
Examiner Unknown	TRADEMARK OFFICE		

U.S. Patent Documents

Foreign Patent Documents

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
	B10						<input type="checkbox"/>	<input type="checkbox"/>
	B11						<input type="checkbox"/>	<input type="checkbox"/>
	B12						<input type="checkbox"/>	<input type="checkbox"/>

OTHER ART

*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
	C10	
	C11	
	C12	

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through entire row if not applicable.